

Appl. No. 10/577,365
Amendment dated 04/29/2010

Amendments to the Claims

1. *(Previously presented)* A method of making a silicone polymer and organic polymer containing alloy emulsion composition comprising: (i) preparing an emulsion containing a linear silicone polymer free of trifunctional T units $\text{RSiO}_{3/2}$ and tetrafunctional Q units $\text{SiO}_{4/2}$ by emulsion polymerization in which (a) the ring of a cyclic siloxane oligomer is opened, in which (b) an hydroxy endblocked siloxane oligomer is condensed, using an acid or base catalyst in the presence of water, or in which (c) an hydrogen endblocked siloxane oligomer and a vinyl endblocked siloxane oligomer are reacted by hydrosilylation using a catalyst; (ii) adding to the emulsion in (i) one or more ethylenically unsaturated organic monomer components for preparing an organic polymer emulsion by free radical emulsion polymerization ; and (iii) heating the emulsion from (ii); wherein the polymer alloy emulsion compositions are substantially two-phase emulsion particles composed of a silicone phase and an organic phase, in which there exists no grafting monomers in the composition, and in which there is no chemical crosslinking between the silicone and organic polymer chains in the emulsion.

2. *(Previously presented)* A method according to Claim 1 in which the ethylenically unsaturated organic monomer is an acrylate ester, a methylacrylate ester, a fluorinated acrylate, a fluorinated methacrylate, acrylic acid, methacrylic acid, allyl methacrylate, dimethylaminoethyl methacrylate, a vinyl halide, a vinyl ester, a vinyl aromatic compound, a vinyl ester of a monocarboxylic acid, or a vinyl pyrrolidone.

3. *(Previously presented)* A method according to Claim 1 in which the components in (ii) comprise one or more organic monomers and a free radical initiator, and the components are added to the emulsion in (i) separately.

4. *(Previously presented)* A method according to Claim 1 in which the components in (ii) comprise one or more organic monomers and a free radical initiator, and the components are added to the emulsion in (i) simultaneously.

Appl. No. 10/577,365
Amendment dated 04/29/2010

5. *(Previously presented)* A method according to Claim 1 in which the silicone polymer in (i) comprises a linear siloxane free of trifunctional T units $\text{RSiO}_{3/2}$ and tetrafunctional Q units $\text{SiO}_{4/2}$ capable of providing crosslinking of the silicone polymer or the reaction of the silicone polymer with the organic polymer; the organic polymer comprises a polymer free of silicon atoms; and the resulting emulsion is an aqueous emulsion containing an immiscible mixture of linear silicone polymers and organic polymers.

6. *(Previously presented)* A method according to Claim 1 in which the ethylenically unsaturated organic monomer is selected from the group consisting of butyl acrylate, methyl acrylate, methyl methacrylate, methacrylic acid, allyl methacrylate, dimethylaminoethyl methacrylate, 2-ethylhexyl acrylate, vinyl acetate, vinyl esters of monocarboxylic acids, vinyl pyrrolidone, and styrene.

7. *(Previously presented)* A method according to Claim 1 in which the silicone polymer emulsion in (i) contains silicone polymer particles having an average particle diameter of 30-500 nanometer, and the viscosity of the phase containing the silicone polymer is 2,000-10,000,000 centistoke (mm^2/s).

8. *(Previously presented)* A method of making a silicone polymer and organic polymer containing alloy emulsion composition comprising (i) preparing a first emulsion containing a linear silicone polymer free of trifunctional T units $\text{RSiO}_{3/2}$ and tetrafunctional Q units $\text{SiO}_{4/2}$ by emulsion polymerization in which (a) the ring of a cyclic siloxane oligomer is opened, in which (b) an hydroxy endblocked siloxane oligomer is condensed, using an acid or base catalyst in the presence of water, or in which (c) an hydrogen endblocked siloxane oligomer and a vinyl endblocked siloxane oligomer are reacted by hydrosilylation using a catalyst; (ii) preparing a second emulsion containing an organic polymer by free radical emulsion polymerization of an ethylenically unsaturated organic monomer; and combining the first and second emulsions; wherein the polymer alloy emulsion compositions are substantially two-phase emulsion particles composed of a silicone phase and an organic phase, in which there exists no grafting monomers in the composition, and in which there is no

Appl. No. 10/577,365
Amendment dated 04/29/2010

chemical crosslinking between the silicone and organic polymer chains in the emulsion.

9. *(Previously presented)* A method according to Claim 8 in which the ethylenically unsaturated organic monomer is an acrylate ester, a methylacrylate ester, a vinyl halide, a vinyl ester, or a vinyl aromatic compound.

10. *(Previously presented)* A method according to Claim 8 in which the silicone polymer in (i) comprises a linear siloxane free of trifunctional T units $\text{RSiO}_{3/2}$ and tetrafunctional Q units $\text{SiO}_{4/2}$ capable of providing crosslinking of the silicone polymer or the reaction of the silicone polymer with the organic polymer; the organic polymer comprises a polymer free of silicon atoms; and the resulting emulsion is an aqueous emulsion containing an immiscible mixture of linear silicone polymers and organic polymers.

11. *(Previously presented)* A method according to Claim 8 in which the ethylenically unsaturated organic monomer is selected from the group consisting of butyl acrylate, methyl acrylate, methyl methacrylate, methacrylic acid, allyl methacrylate, dimethylaminoethyl methacrylate, 2-ethylhexyl acrylate, vinyl acetate, vinyl esters of monocarboxylic acids, vinyl pyrrolidone, and styrene.

12. *(Previously presented)* A method according to Claim 8 in which the first emulsion contains silicone polymer particles having an average particle diameter of 30-500 nanometer, and the viscosity of the phase containing the silicone polymer is 2,000-10,000,000 centistoke (mm^2/s).

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)